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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,754

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Shozo Kadota

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08/05/2008

WENDEROTH, LIND & PONACK L.L.P.

2033 K. STREET, NW

SUITE 800

WASHINGTON, DC 20006

EXAMINER

NGUYEN, DONGHAI D

ART UNIT

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3729

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,754	<b>Applicant(s)</b> KADOTA ET AL.	
	<b>Examiner</b> DONGHAI D. NGUYEN	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 28-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/1/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant is advised that the Notice of Allowance mailed April 30, 2008 is vacated by the Office Action dated May 15, 2008.

#### ***Claim Objections***

2. Claims 32 and 33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since independent claim 28 has been amended to include substantially all the limitations of claims 32 and 33 by the Examiner's amendment, claims 32 and 33 do not further limit the subject matter of claim 28.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28, 32, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,833,776 to Wakamiya et al.

Regarding claims 28 and 32, Wakamiya et al disclose a method for inserting components to a board, comprising: at a component grasping position (component supply such as tray, reel, etc.), releasably grasping a first component (2), having a device portion (body) and a lead wire

(4) at said device portion, by applying a first grasping pressure to the device portion said of first component (see Fig. 4F); while releasably grasping said first component, performing a first positional alignment in a direction along a surface of the board (5) to align said lead wire of said first component and a first lead-wire insertion hole of said board (see Figs. 4G-4K); after said performing of said first positional alignment, inserting said lead wire of said first component into said first lead-wire insertion hole of said board (5, see Fig. 4L); at said component grasping position, releasably grasping a second component (3), having a device portion (body and a lead wire (4) at said device portion (see Fig. 1), by applying a second grasping pressure to the body portion of said second component (see Fig. 5C); while releasably grasping said second component, performing a second positional alignment in a direction along said surface of said board to align said lead wire of said second component and a second lead-wire insertion hole of said board (see Fig. 4G-K); after said performing of said second positional alignment, inserting said lead wire of said second component into said second lead-wire insertion hole of said board (see Figs. 1 and 4L); and wherein said device portion of said first component is lower in rigidity than said device portion of said second component (see Fig. 1 as compared to Figs. 30-35 of Applicants).

Wakamiya et al does not explicitly disclose said first grasping pressure applied to said first component is lower than said second grasping pressure applied to said second component and said first and second grasping pressures do not plastically deforming configurations of the device portions of said first and second components; However, Wakamiya disclose the grasping pressure can be controlled/adjusted (see Col. 5, lines 18-25) such that excessive force applied to the component can be avoided (see Col. 2, lines 28-34). Therefore, it would have been obvious

to one having ordinary skill in the art at the time the invention was made to modify the invention of Wakamiya et al by utilized the capability of control the grasping force as disclosed by Wakamiya et al to apply an appropriated force the body portion of the components without plastically deforming configuration of the device portion of the component.

Regarding 34, Wakamiya et al disclose said first and second components comprise radial components (see Figs. 1 and 5) and correcting an insertion posture of the component prior to said inserting of the lead wire of the component into the respective one of the first and second lead-wire insertion holes, wherein said correcting of the insertion posture of the component includes grasping said lead wire of said component and performing positional alignment in a direction along a surface of the board between the lead wire of the component and the respective lead-wire insertion hole of the board, and along with said grasping of said lead wire of said component, grasping the device portion of the component whose lead wire has been grasped to correct a bend of the lead wire on a fulcrum given by the grasping position of the lead wire so that the device portion is placed at the component insertion position in the direction along the surface of the board (see Figs. 4A-4K).

Regarding claim 36, Wakamiya et al disclose each of the components that are radial components has a plurality of the lead wires formed so as to be arrayed in one line (see Fig. 1), and the correction of the insertion posture of the component is performed by moving the device portion in a direction extending along a surface of the board and generally perpendicular to the array direction of the lead wires (see Fig. 4C).

5. Claims 29-31, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamiya et al in view of US Patent 4,628,595 to Fujita.

Regarding claims 29 and 35, Wakamiya et al disclose the inserting of said lead wire (4) of said first and second components (1-3) into said first and second lead-wire insertion holes (6) of said board (5, see Figs. 1 and 4L) using a pusher (22a-b) to apply a first and second pressing pressures to press said device portion of said first and second components toward an insertion position of said board (see Figs. 5A-C); and the first pressing pressure applied to press said device portion of said first component is less than said second pressing pressure applied to press said device portion of said second component (see the reasons for modification in claim 28). However, Wakamiya et al do not disclose engaging an end portion of said lead wire of said first and second components with an engagement portion of a guide pin extending through said first lead-wire insertion hole such that engagement is maintained between said guide pin and said lead wire of said first component, and while the engagement between said guide pin and said lead wire of said first component is maintained, discontinuing the releasably grasping of said first component and using said guide pin to guide said lead wire of said first component into said first lead-wire insertion hole. Fujita et al teach the guide pins (45) engage with the end portion of the lead wires (5) of the component (4, see Figs. 13-17); pushing the components downward while the engagement is maintained and while the engagement between said guide pin and said lead wire of said first component is maintained, discontinuing the releasably grasping of said first component and using said guide pin to guide said lead wire of said first component into said first lead-wire insertion hole (21, see Figs. 15-21) for quickly inserting the lead wire to the insertion hole in the board without error (see Col. 1, lines 15-17). Therefore, it would have been obvious

to one having ordinary skill in the art at the time the invention was made to modify the invention of Wakamiya et al by utilized the guide pins as taught by Fujita for quickly inserting the lead wire to the insertion hole in the board without error.

Regarding claims 30, 31 and 33, Wakamiya et al disclose fixing said first, second and third components to said board by bending said lead wire (4) of said first and components (1-3) while said pusher member presses said device portion of said components such that said device portion of said components is held at the insertion position, with a pressure applied for pressing said device portion such that said device portion is held at the insertion position being greater than the pressure applied for maintaining engagement between the engagement portion of the guide pin and said lead wire of said components (see Figs. 4L-N).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 28-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONGHAI D. NGUYEN whose telephone number is (571)272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN  
August 04, 2008

/Donghai D. Nguyen/  
Primary Examiner, Art Unit 3729